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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/569,581	02/23/2006	Nobuhiro Murakami	SHIGCP10AP04AK	5729
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HAYES SOLOWAY P.C. 3450 E. SUNRISE DRIVE, SUITE 140 TUCSON, AZ 85718			EXAMINER WAKS, JOSEPH	
			ART UNIT	PAPER NUMBER
			2834	
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			07/25/2007	PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

## Office Action Summary

Application No.

10/569,581

Applicant(s)

MURAKAMI ET AL.

Examiner

Joseph Waks

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 23 February 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 13-24 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 13-24 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 23 February 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

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## **DETAILED ACTION**

### ***Priority***

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

### ***Specification***

2. Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

In line 1, "comprising" and line 7, "means" are legal phraseology.

### ***Claim Rejections - 35 USC § 102***

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 13 and 14 are rejected under 35 U.S.C. 102(b) as being anticipated by Skarpa (US 6,375,424).

Skarpa discloses invention as claimed: a Magnus type wind power generator including a horizontal rotary shaft that transmits a rotation torque to a power generating mechanism 3, rotary columns 8 radially disposed from the horizontal rotary shaft, and driving motors 2 driving the respective rotary columns about axes thereof, wherein Magnus lift generated by interactions between the rotations of said respective rotary columns and wind power is caused to rotate the horizontal rotary shaft to drive the power generating mechanism, and the air flow devices that generates an air flow upon an outer peripheral surface of said rotary column so as to increase the Magnus lift (See column 3, lines 10-15 and column 4, lines 14-19).

***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claim 15, 17, 18, 20 and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Skarpa (US 6,375,424) in view of Massey (US 2,344,515).

Skarpa discloses the wind power generator essentially as claimed. However, Skarpa does not disclose the air flow device generating an air flow component parallel with the axis of the rotary column and in a direction departing from the horizontal rotary shaft upon the outer peripheral surface of said rotary column.

Massey discloses means and methods for increasing Magnus effect including rotating columns 42 and the air flow device 45 generating an air flow component parallel

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with the axis of the rotary column and in a direction departing from the rotary shaft upon the outer peripheral surface of said rotary column.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to design the wind power generator as taught by Skarpa and to provide the air flow device generating an air flow component parallel with the axis of the rotary column and in a direction departing from the horizontal rotary shaft upon the outer peripheral surface of said rotary column as taught by Massey for the purpose of increasing the Magnus effect, thus improving the generator efficiency by increasing the rotor lift.

7. Claims 15-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Skarpa (US 6,375,424) in view of Iannone (WO 02/426640).

Skarpa discloses the wind power generator essentially as claimed. However, Skarpa does not disclose the air flow device generating an air flow component parallel with the axis of the rotary column and in a direction departing from the horizontal rotary shaft upon the outer peripheral surface of said rotary column or toward the horizontal rotary shaft.

Iannone discloses wind generator using Magnus effect for assisting the rotation of the generator at low speed winds and including rotating columns 2 and the air flow device 4 generating an air flow component parallel with the axis of the rotary column and in a direction departing from the rotary shaft upon the outer peripheral surface of said rotary column on one side and toward the horizontal rotary shaft at the other side of the impeller.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to design the wind power generator as taught by Skarpa and to provide the air flow device generating an air flow component parallel with the axis of the rotary column and in a direction departing from the horizontal rotary shaft upon the outer peripheral surface of said rotary column on one side and toward the horizontal rotary shaft at the other side of the impeller as taught by Iannone, for the purpose of assisting the rotation of the generator at low speed winds.

8. Claims 21 and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Skarpa (US 6,375,424) in view of Shimizu et al. (JP 06-316925).

Skarpa discloses the wind power generator essentially as claimed. However, Skarpa does not disclose the plurality of dimples provided upon the outer peripheral surface of the rotary column.

Shimizu et al. disclose the Magnus type machine having rotary columns 4 and 5 furnished with dimples 9, for the purpose of preventing fluid exfoliation.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to design the wind power generator as taught by Skarpa and to provide the dimples as taught by Shimizu et al. for the purpose of preventing fluid exfoliation causing eddy losses during the generator operation.

9. Claim 24 is rejected under 35 U.S.C. 103(a) as being unpatentable over Skarpa (US 6,375,424) in view of Shibata et al. (EP 1327773).

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Skarpa discloses the wind power generator essentially as claimed. However, Skarpa does not disclose driving motors being fewer in number than the number of the rotary columns and being used to drive the rotary columns simultaneously.

Shibata et al. disclose a wind turbine generator having blades 1 driven simultaneously by a single motor 23 for the purpose of adjusting the blades in accordance with the wind velocity.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to design the wind generator as taught by Skarpa and to provide a single motor driving simultaneously several columns as taught by Shibata et al. for the purpose of synchronized activation of the columns in accordance to the wind velocity.

#### ***Prior Art***

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

#### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Joseph Waks whose telephone number is (571) 272-2037. The examiner can normally be reached on Monday through Thursday 8 am to 5 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Darren E. Schuberg can be reached on (571) 272-2044. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Joseph Waks  
Primary Examiner  
Art Unit 2834

7/17/07